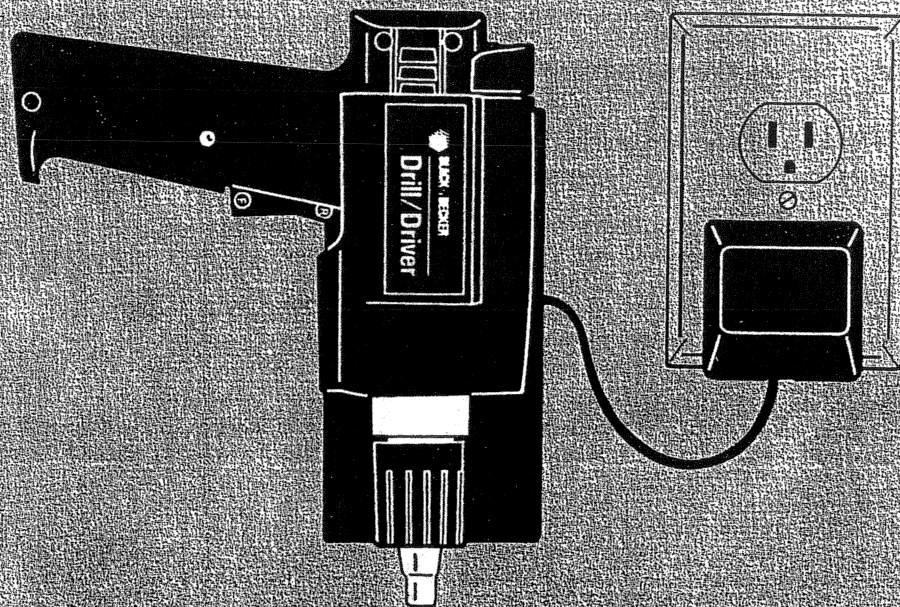


**The more you know
about your new
Drill/Driver™
the more you'll be
able to enjoy it.**



**This Owner's Manual
can show you how.**

9021



BLACK & DECKER™

9021 Drill/Driver

INTRODUCTION

As a leader in cordless tools since 1961, Black & Decker has put a lot of know-how into making the perfect tool for those frequent little jobs around the house. Tasks where you don't need a heavy duty tool or one that's way down in the workshop are just made for the **9021 Drill/Driver**.

The Drill/Driver hangs on the wall wherever you want . . . the kitchen, laundry, closet, wherever it's the most handy. Constantly on charge, it's always ready when you are to drill holes and drive screws. It's perfect for hanging curtains, plants, light fixtures, shelves, and a hundred other jobs in and around the home. The Drill/Driver is so handy and so easy to use, it makes a perfect gift for just about anyone.

We've included some neat little extras like a holster that leaves your hands free for other things, a rocker switch for one-handed changes from forward to reverse, and we've even included three popular size drill bits and a couple of screwdriver bits in a handy storage holder that fits right into the holster.

All this and more are sure to make your Drill/Driver a tool you'll count on again and again to make life easier around the house.

Don't forget to send in your owner's registration card.

Thanks for bringing Black & Decker home!

IMPORTANT SAFETY INSTRUCTIONS (For All Tools)

WARNING: When using Electric Tools, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury, including the following:

READ ALL INSTRUCTIONS

1. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite injuries.
2. **CONSIDER WORK AREA ENVIRONMENT.** Don't expose power tools to rain. Don't use power tools in damp or wet locations. Keep work area well lit.
3. **GUARD AGAINST ELECTRIC SHOCK.** Prevent body contact with grounded surfaces. For example: pipes, radiators, ranges, refrigerator enclosures.
4. **KEEP CHILDREN AWAY.** All visitors should be kept away from work area. Do not let visitors contact tool or extension cord.
5. **STORE IDLE TOOLS.** When not in use, tools should be stored in dry, and high or locked-up place — out of reach of children.
6. **DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was intended.
7. **USE RIGHT TOOL.** Don't force small tool or attachment to do the job of a heavy-duty tool. Don't use tool for purpose not intended, for example, don't use circular saw for cutting tree limbs or logs.
8. **DRESS PROPERLY.** Do not wear loose clothing or jewelry. They can be caught in moving parts. Rubber gloves and nonskid footwear are recommended when working outdoors. Wear protective hair covering to contain long hair.
9. **USE SAFETY GLASSES.** Also use face or dustmask if cutting operation is dusty.

IMPORTANT SAFETY INSTRUCTIONS (Cont'd)

10. **DON'T ABUSE CORD.** Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges.
11. **SECURE WORK.** Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate tool.
12. **DON'T OVERREACH.** Keep proper footing and balance at all times.
13. **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for better and safe performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and if damaged have repaired by authorized service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean and free from oil and grease.
14. **DISCONNECT TOOLS.** When not in use, before servicing, and when changing accessories, such as blades, bits, cutters.
15. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
16. **AVOID UNINTENTIONAL STARTING.** Don't carry plugged-in tool with finger on switch. Be sure switch is off when plugging in.
17. **OUTDOOR USE EXTENSION CORDS.** When tool is used outdoors, use only extension cords intended for use outdoors and so marked.
18. **STAY ALERT.** Watch what you are doing. Use common sense. Do not operate tool when you are tired.
19. **CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless otherwise indicated elsewhere in this instruction manual. Have defective switches replaced by authorized service center. Do not use tool if switch does not turn it on and off.
20. **DO NOT OPERATE** portable electric tools near flammable liquids or in gaseous or explosive atmospheres. Motors in these tools normally spark, and the sparks might ignite fumes.

CAUTION: When drilling into walls, floors or wherever "live" electrical wires may be encountered. **DO NOT TOUCH THE CHUCK OR ANY FRONT METAL PARTS OF THE DRILL!** Hold the Drill only by the plastic handles to prevent electric shock if you drill into a "live" wire.

SAVE THESE SAFETY RULES FOR FUTURE USE.

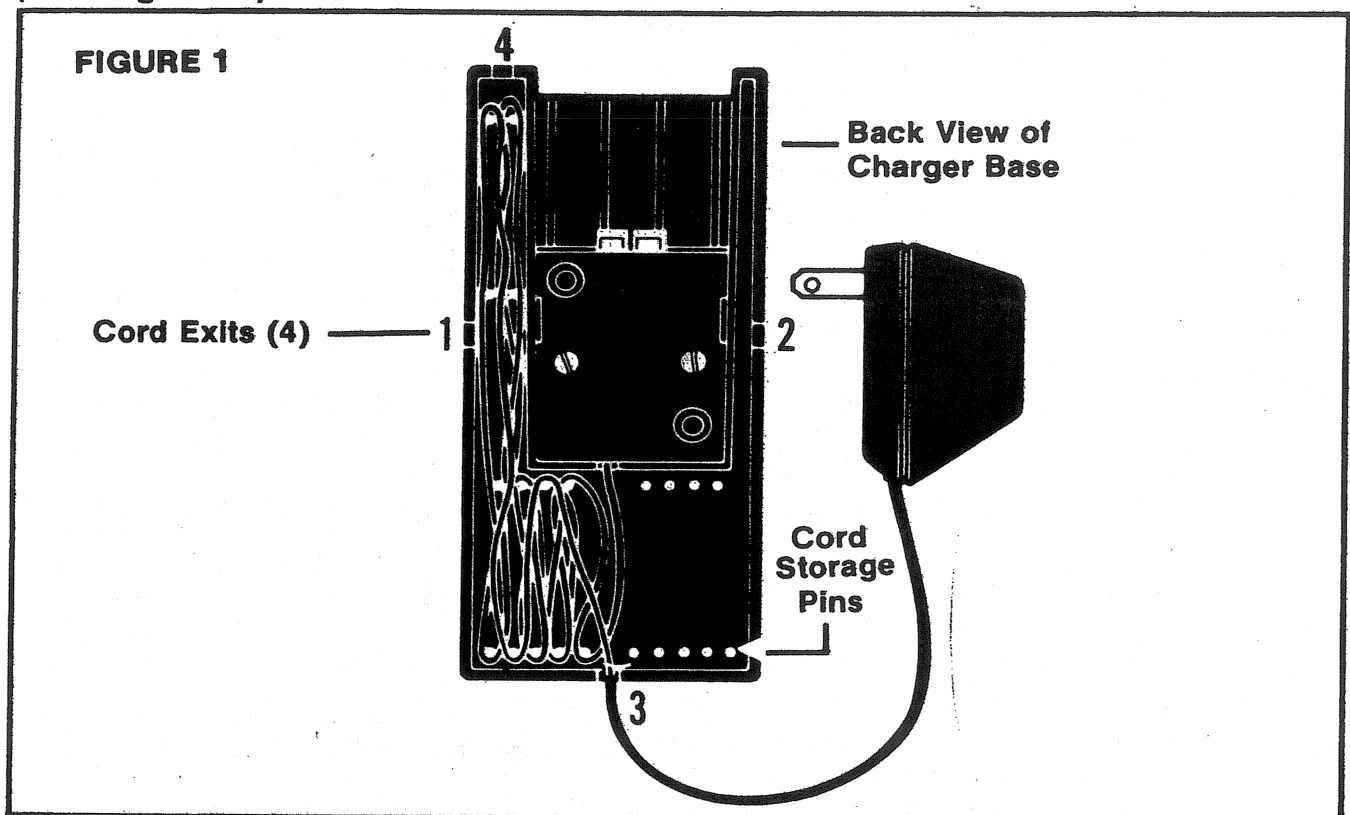
We know that safety rules can make for some pretty dry reading, but they really are important. If you just skimmed them, please go back now and thoroughly read them. Thank you.

NOTE: The exposed electrical contacts on the tool and the wall mounted charger base are perfectly safe to touch. Touching them is just like handling flashlight batteries.

CHARGER MOUNTING INSTRUCTIONS

1. The plastic bag supplied with your tool contains two wood screws and two plastic wall anchors. Use the anchors to mount the charger to drywall and use the wood screws to mount it to a wooden surface. (The charger need not be hung at all to operate properly.)
2. To use the plastic wall anchors drill a 3/16" hole in the drywall where you will be installing the anchor. (Mark the desired place by holding the charger base against the wall and inserting a pencil through one of the two mounting holes.) Don't forget to locate the charger base within 6 feet of a wall outlet.
3. Insert the plastic wall anchor and tap it lightly with a hammer to seat it flush to the wall. Position the charger base over the anchor and use one of the wood screws to hold the charger base on the wall. Repeat the process for the other mounting hole in the charger base.
4. When mounting the charger base to a wooden surface, drill 3/32" pilot holes for the wood screws. The plastic wall anchors should not be used when hanging the charger base to a wooden wall.

The 6 foot cord supplied with your charger base can be effectively "shortened" by wrapping the excess cord around the cord storage pins located on the bottom of the charger base, as shown in **Figure 1**. The cord can be exited from the base at the bottom or either side by passing it through the slot in those areas. (See **Figure 1**.)



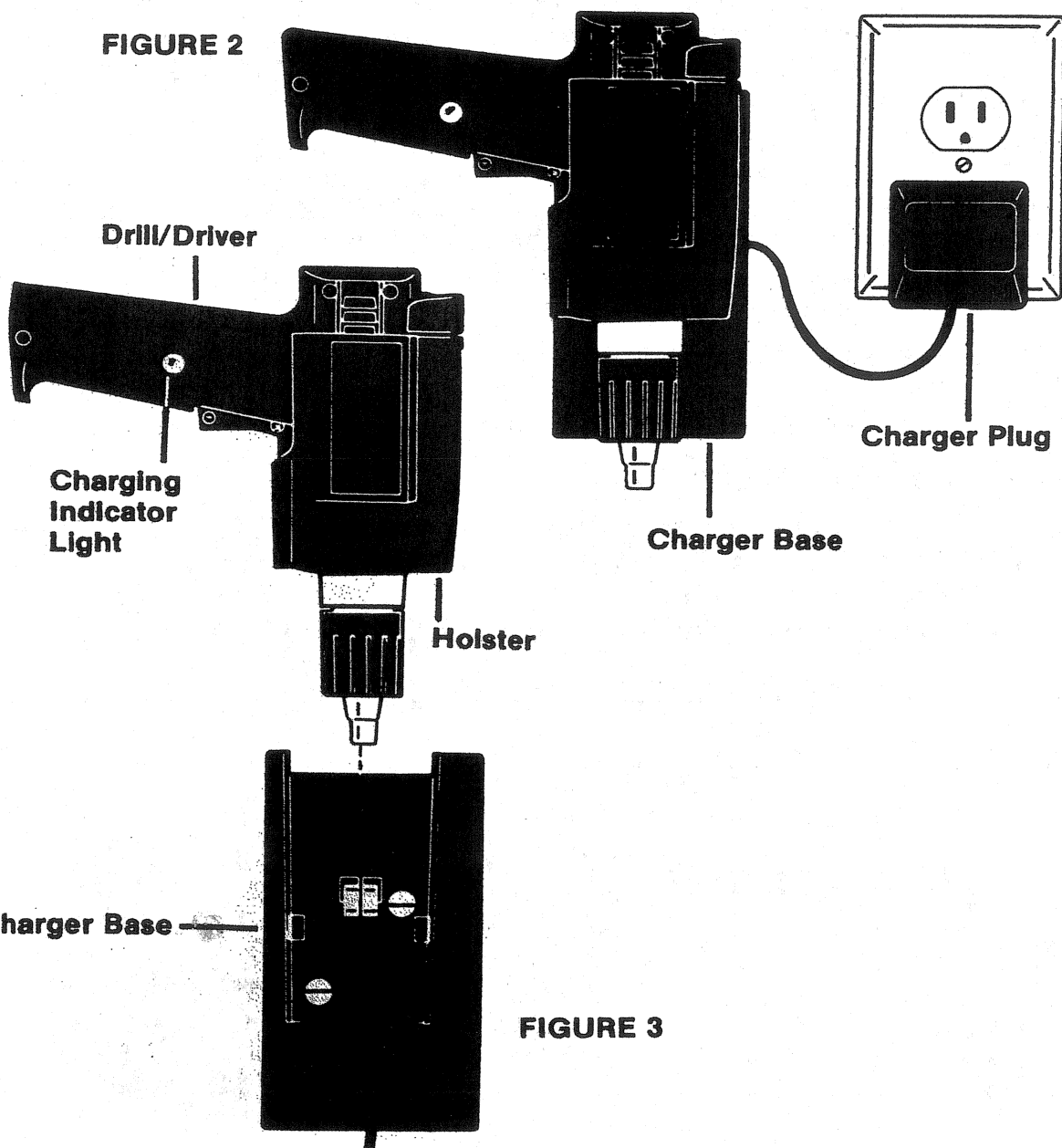
CHARGING NOTES

NOTE: The Drill/Driver was sent from the factory in an uncharged condition. Before attempting to use it, it must be charged for 16 hours.

1. The charging base can be hung on any wall within 6 feet of a wall outlet. Any extra length of the 6 foot power cord can be wrapped around the underside of the base to keep it out of sight.
2. Hang the charger base vertically, as shown in **Figure 2**.

CHARGING NOTES (Cont'd)

3. DO NOT PLACE the charger base in an area of extreme heat or cold... it will work best at normal room temperature.
4. The charger plug housing and the Drill/Driver handle will become slightly warm to the touch. This is normal and does not indicate a problem.
5. Insert the tool/holster assembly into the charger base as shown in **Figure 3**. When properly installed, you will feel and hear a soft click. At this time, the small red light in the Drill/Driver's handle will come on to indicate that the tool is charging properly. Any time the tool is in the charging base, whether or not it is fully charged, this light will be on. If the light in the handle does not come on when the unit is in the charging base, check:
 - a. The power supply, b. Proper insertion of holster in charger base and
 - c. Proper insertion of the Drill/Driver into the holster.



CHARGING NOTES (Cont'd)

6. The tool can be left on charge as long as you desire. A minimum charge time of 16 hours is required to recharge a completely discharged tool, but you may wish to keep the tool constantly on charge. The charger base is designed to work 24 hours a day every day.
7. Under normal conditions, the Drill/Driver will drill holes and drive screws enough for most household jobs on one full charge. Of course the harder the tool works, the faster the batteries will become discharged. This will vary depending on the type of work being done. If you notice a decrease in the working time for a full charge, fully discharge the tool's batteries by holding the switch on until it stops running. Charge it overnight and repeat this process. Charge again and the tool should be restored to its original level of performance.
8. If you desire, you can leave the tool's holster in the charging base while you work. (Of course if you do, you won't have the bits with you... they're stored in the holster.) The tool cannot be charged without being in the holster. Never attempt to charge the drill without the holster. **(DO NOT STORE THE TOOL WITH A BIT IN THE CHUCK.)**

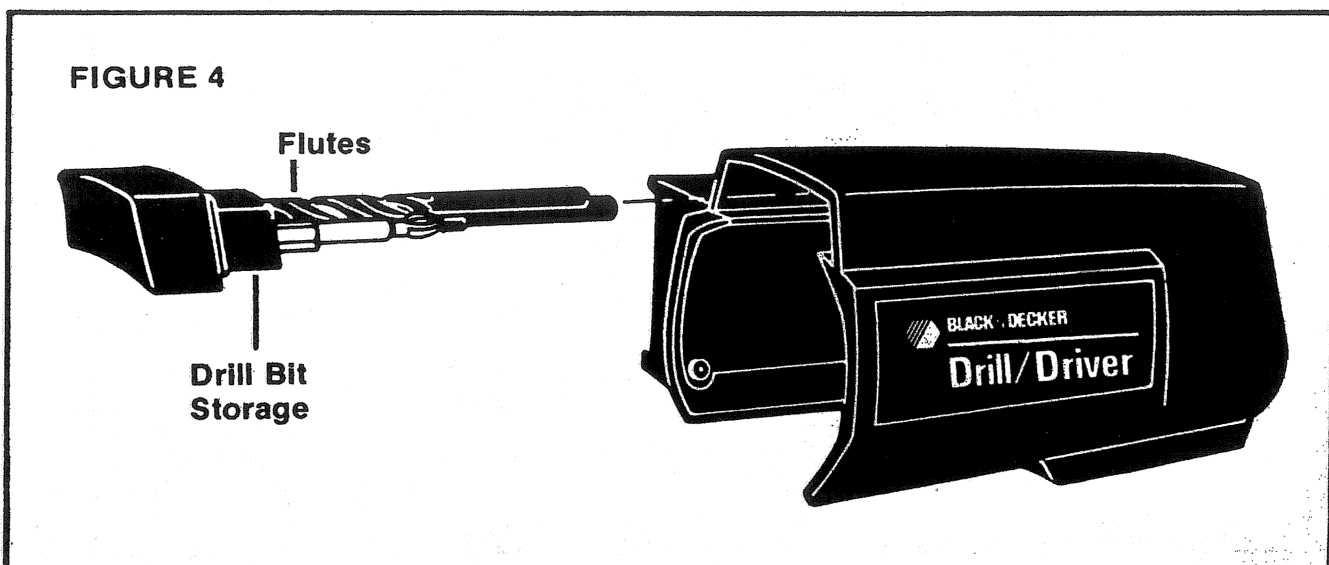
HOLSTER

The holster supplied for your tool serves a three-fold purpose: it holds the tool, thus keeping both of your hands free for other things; it provides for proper alignment of the tool when charging; and it holds the drill bits and screwdriver bits that are supplied with the Drill/Driver.

The holster has a handy belt clip and can be worn on either side for convenience. The holster is particularly useful when working on ladders or in remote locations where the tool can't be readily laid down.

DRILL BIT STORAGE

Three drill bits (3/32", 3/16", 1/4") and two screwdriver bits (No. 8-10 slotted and No. 2 Phillips) are included that fit into a clever little storage plug located, as shown in **Figure 4**. The bits are in the plastic bag packed with your tool. Always insert drill bits into holder with flutes (cutting edges) down, as shown in **Figure 4**.

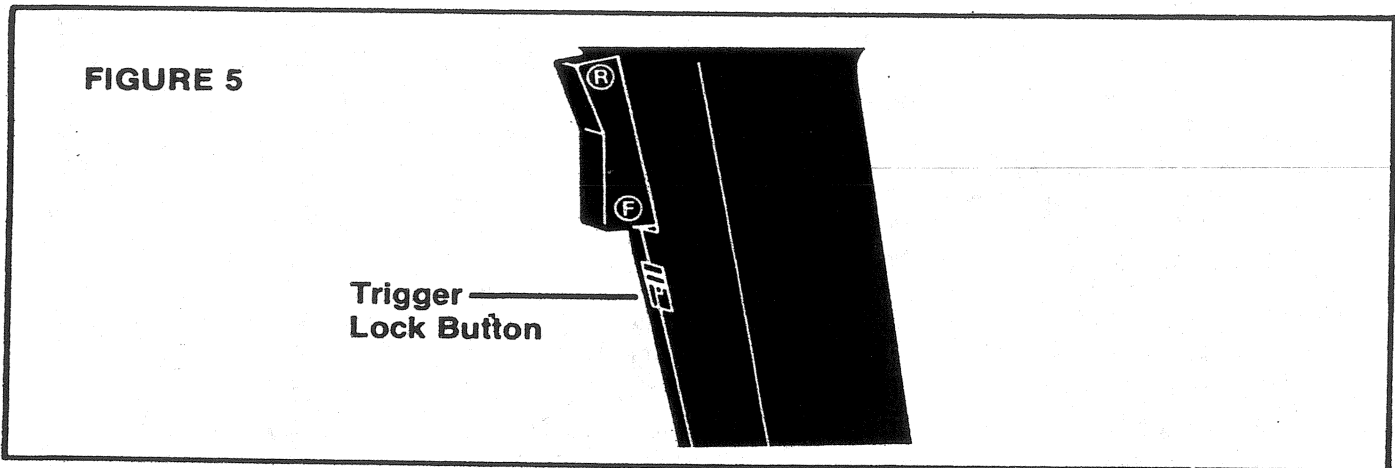


RATCHET LOCK

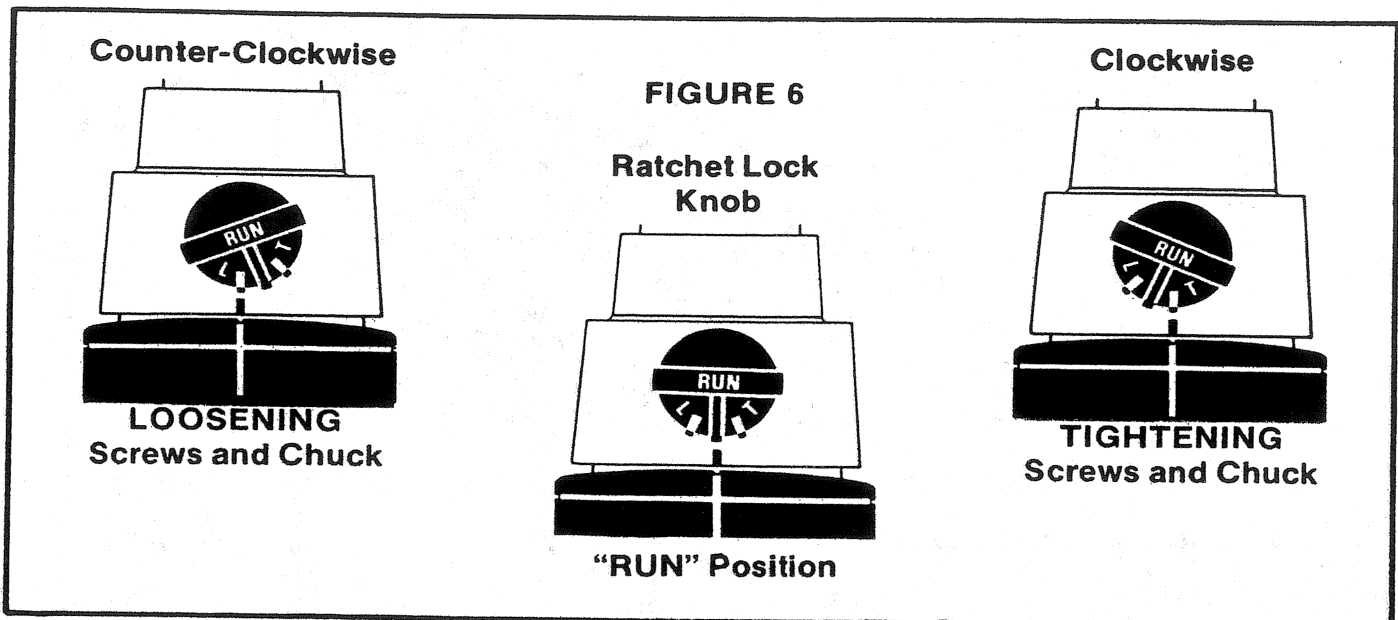
Your Drill/Driver is equipped with a ratchet lock system that can deliver extra torque for tightening or loosening particularly stubborn screws. To use this feature, follow the steps below.

In normal usage you will seldom, if ever, encounter a situation where the screw is so tight that the ratchet lock is required. The system is, however, useful when tightening or loosening the keyless chuck. This section describes how to operate the ratchet lock whether for loosening tight screws or working with the keyless chuck.

1. Push the trigger lock button up, as shown in **Figure 5**. This will prevent the trigger from being actuated. **THIS IS VERY IMPORTANT.**



2. Rotate the ratchet lock knob (shown in **Figure 6**) in the desired direction about 1/8 TURN until it stops. It will feel quite stiff when turning. Align the mark on the knob with the mark on the tool's housing. (**CLOCKWISE, toward "T", FOR TIGHTENING SCREWS and COUNTER-CLOCKWISE, toward "L", FOR LOOSENING SCREWS.**) **FOR ALL APPLICATIONS WHERE THE TOOL IS RUNNING THE RATCHET LOCK KNOB MUST BE IN THE "RUN" POSITION. ALIGN THE MARK FROM THE WORD "RUN" WITH THE MARK ON THE TOOL'S HOUSING, AS SHOWN IN FIGURE 6.**



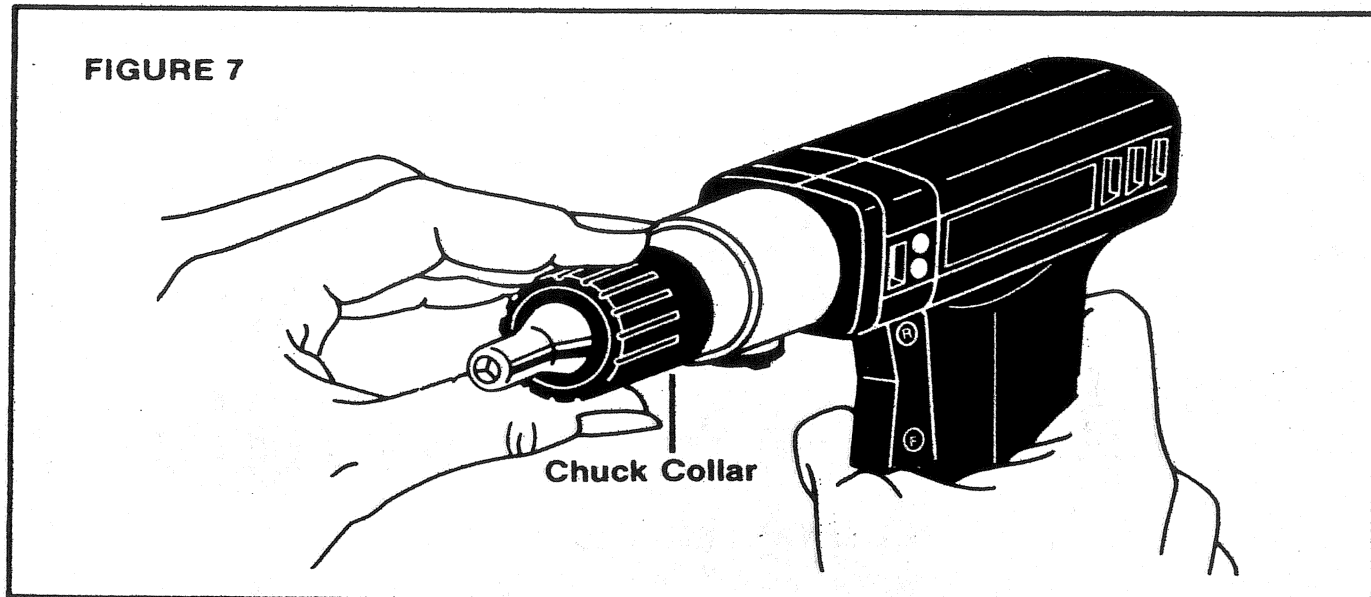
RATCHET LOCK (Cont'd)

3. Engage the bit in the screw and rotate the tool by hand back and forth. **NEVER PULL THE TRIGGER WHEN THE DRILL/DRIVER IS IN THE RATCHET-LOCK MODE AND NEVER ENGAGE THE RATCHET LOCK WHILE THE TOOL IS RUNNING. PERMANENT DAMAGE TO THE TOOL MAY RESULT.** In one direction the tool will lock up and turn the screw and in the other direction it will "ratchet" or slip. The sound it makes while slipping is from the gearing and motor.
4. Continue to rotate back and forth as necessary to sufficiently tighten or loosen the screw. **NOTE:** This feature is particularly useful when loosening rusted screws or driving screws into wood without pilot holes.
5. After ratchet operations are finished, return the ratchet lock knob to the center, or "RUN" position. You should feel a soft click when the knob reaches "RUN." If you plan to continue using the Drill/Driver, push the trigger lock button down in order to release the trigger for use. If you will be returning the tool to the charger base, it is not necessary to release the trigger lock button. The Drill/Driver will charge whether the trigger lock button is up or down.

KEYLESS CHUCK

(Push the Trigger Lock Button UP.)

To use the keyless chuck on your Drill/Driver, loosen the chuck collar, as shown in **Figure 7**, by turning it counter-clockwise. Insert the desired drill or screwdriver bit all the way into the chuck and tighten the collar, as shown in the figure, by turning it clockwise as far as it will go. If you hear or feel the motor rotating as you turn the chuck collar, use the ratchet lock system to lock the motor while you tighten or loosen the chuck. Turn the ratchet lock knob to the "T" position for tightening the chuck and to the "L" position for loosening the chuck. **AFTER TIGHTENING OR LOOSENING THE CHUCK, BE SURE TO RETURN THE RATCHET LOCK KNOB TO THE "RUN" POSITION AND TO RELEASE THE TRIGGER LOCK BUTTON. NOTE:** The chuck collar rotates as the tool runs, and is not a place to hold the tool while you work.



SWITCH

(Make sure the ratchet lock is in the "NEUTRAL" position.)

Your tool has a rocker-type switch for one-handed forward and reverse operation. To turn the tool "ON" in forward, squeeze the bottom half of the trigger, as shown in **Figure 8**. To operate the tool in reverse, squeeze the upper half of the trigger, as shown in the figure. If the trigger does not operate, check the position of the trigger lock button. **NOTE:** This tool has no provision for locking the trigger in the "ON" position.

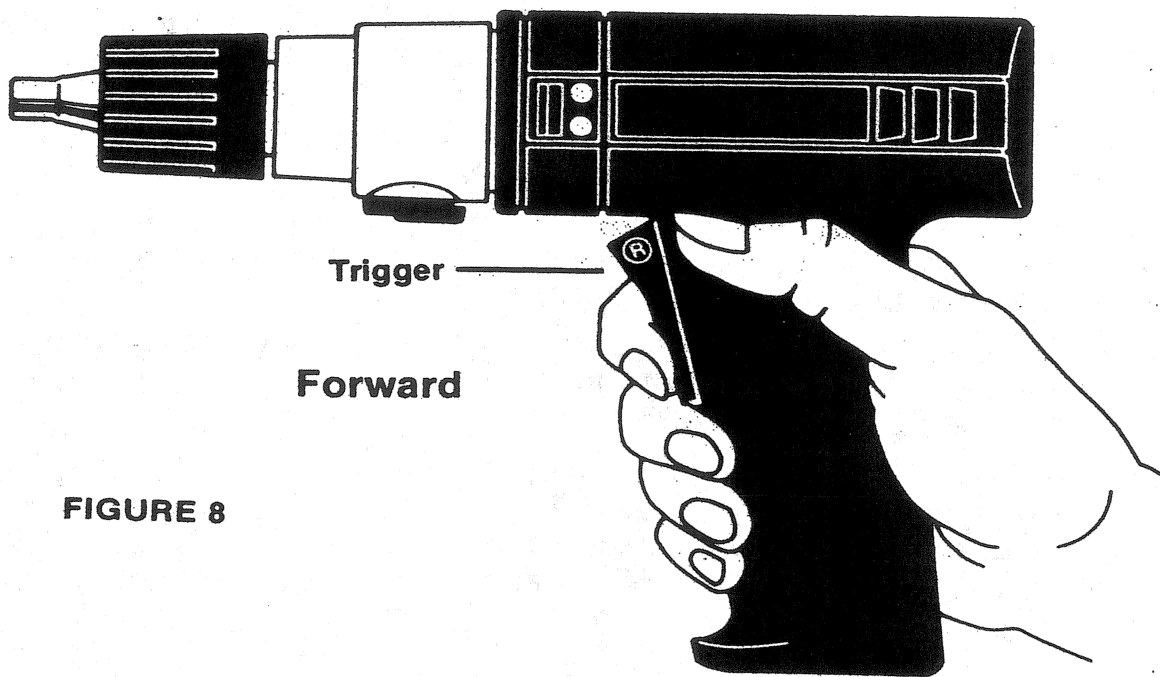
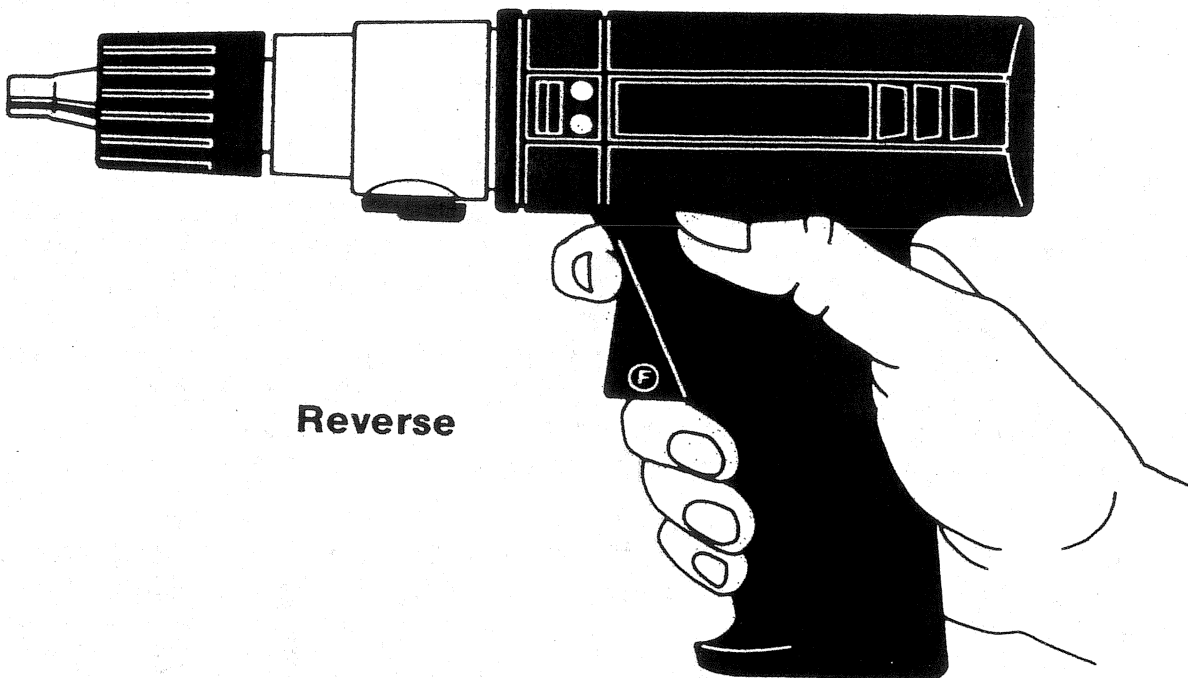


FIGURE 8



OPERATION

Although the Drill/Driver is really very simple to operate, a few tips on how to use it best are presented here for your information. Even experienced drill users might want to review this section as a reminder of those things they may have forgotten.

Pilot Holes

Pilot holes are holes drilled in wood that are slightly smaller than the screw which is to be driven. (For the purpose of this discussion, we will limit ourselves to talking about wood, although there are other materials you may encounter.) The pilot hole has two purposes. As its name suggests, it acts as a guide for the screw to follow and allows the screw to be driven with just the threads gripping the wood. This makes the screw much easier to drive and prevents distortion or splitting of the wood caused by driving the whole screw body into the wood. The 1/4" drill bit is supplied for drilling clearance holes for anchors in drywall. It is not intended for drilling of pilot holes in wood.

When re-inserting a wood screw into a hole that is already threaded, start the screw by hand to avoid stripping the threads in the hole. Run the screw in until you feel the threads catch, then apply the Drill/Driver.

Different screw sizes and materials call for different size pilot holes. A handy chart on page 11 of this manual should supply you with all the pilot hole information you will need for using your Drill/Driver.

Screws will occasionally become tight before they are fully seated. The natural inclination when this occurs is to twist the tool in a tightening motion while continuing to squeeze the trigger. Although this will work, it is not recommended because it will deplete the batteries. Refer to the section entitled "RATCHET LOCK" on page 7 for instructions on tightening or loosening particularly tight screws.

Screw Lubricants

In some cases it may be to your advantage to use a lubricant to make a screw drive a little easier. Two of the more common lubricants are bar soap and liquid dishwashing soap. Just put a little on the screw threads for easy driving.

Screw Selection

Of course different applications require different types and sizes of screws. There must be literally hundreds of different sizes and shapes of screws and they even come in different materials, but for your purposes, you can generally limit yourself to about two or three sizes and two types. Round headed wood screws have round heads that stick up above the surface of the wood into which they are driven. In many cases, like hanging applications, this is desirable. In other applications, protruding screw heads are not wanted. Flat headed wood screws are useful here. With the proper countersink (available from Black & Decker at extra cost) they can even be covered with putty and painted so as to be invisible.

Be careful to avoid overtightening small brass screws. The heads can easily be twisted off and the threads can strip. Hand tightening of these screws is recommended.

We recommend that you use Phillips head screws whenever possible. They are a little easier to drive because the screwdriver bit cannot slide sideways out of the screw slot.

PILOT HOLE DIAMETERS FOR COMMON WOOD SCREW SIZES

Screw Size	Diameter	Suggested Uses	Pilot Hole Diameter*	
			Soft Wood & Composition	Hardwoods
#6	3/32"	House numbers, Light weight wall hangings, Small cup hooks	5/64"	3/32"
#8	7/64"	Curtain rods, Window locks	3/32"	7/64"
#10	1/8"	Door hardware, Hinges	7/64"	1/8"
#12	9/64"	Hanging plants, Deadbolts, Light fixtures	1/8"	9/64"

NOTE: Pilot holes should be drilled to a depth equal to the length of the screw. #8, #10, & #12 are the most common available sizes of wood screws and can be used for most of the applications above. The heavier applications should use the larger (higher #) screws.

No. 6 and smaller screws will often require a No. 1 Phillips screwdriver bit or a thinner bladed bit. Both of these are available at extra cost from Black & Decker.

* When in doubt about whether you are drilling into soft wood or hardwood, assume that it is soft and drill the smaller pilot hole. Then, if the screw is particularly hard to turn, drill the larger size pilot hole.

CAUTION: When screwing into hollow core doors or drywall (unsupported) use expandable anchors. (Available at extra cost from Black & Decker.)

ACCESSORIES

The accessories listed in this manual are available at extra cost from your local dealer, Black & Decker Service Center, or by writing to: Customer Services, Black & Decker (U.S.) Inc., 500 Hanover Pike, Hampstead, Maryland 21074.

Your Drill/Driver is designed to operate with the following accessories only. The use of any accessory not recommended below may be hazardous and may damage the Drill/Driver.

TWIST BITS: (like those supplied with your tool)

Up to 1/4" maximum. (For use in wood, drywall and plastic.)

SCREWDRIVER BITS: (like those supplied with your tool)

All Black & Decker sizes and configurations except #71-372 bit set.

SOCKETS: (not supplied)

Black & Decker hex sockets up to 1/4" maximum.

CLEANING AND LUBRICATION

Use only mild soap and a damp cloth to clean the tool. Other cleaners contain chemicals which could seriously damage the plastic. Never let any liquid get inside the tool; never immerse any part of the tool into a liquid.

Self-lubricating bearings are used in the tool and periodic relubrication is not required. In the unlikely event that this tool should require service, take or send it to your local Black & Decker Service Center. Service center addresses are listed on the owner's registration card packed with your tool.

IMPORTANT!

To assure product SAFETY and RELIABILITY, repairs, maintenance and adjustments (including brush inspection and replacement) should be performed by Black & Decker Service Centers or other qualified service organizations, always using Black & Decker replacement parts.

HOME USE WARRANTY (A FULL TWO YEAR WARRANTY)

Black & Decker warrants this product for two years against any defects that are due to faulty material or workmanship. Please return the complete unit, transportation prepaid, to the seller (if a participating retailer) for free replacement (proof of purchase may be required). The unit may also be returned to a Black & Decker Service Center or Authorized Service Station, listed under "Tools Electric" in the yellow pages for free replacement or repair at our option. This warranty does not apply to accessories. This warranty gives you specific legal rights and you may have other rights that vary from state to state. Should you have any questions, contact your nearest Black & Decker Service Center Manager.



See 'Tools-Electric'
—Yellow Pages—
for Service & Sales

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Consumer Power Tools Division • 3012 Highwoods Blvd.
Raleigh, NC 27625 U.S.A.